EMBOSS Align Results

Water Results	
Matrix	Blosum62
Open gap penalty	10.0
Gap extension penalty	0.5
Water output	water-20090211-19444737379758.output

    SUBMIT ANOTHER JOB

```
########################################
# Program:  water
# Rundate:  Wed Feb 11 19:44:49 2009
# Align_format: srspair
# Report_file: /ebi/extserv/old-work/water-20090211-19444737379758.output
########################################

#=======================================
#
# Aligned_sequences: 2
# 1: EMBOSS_001
# 2: EMBOSS_001
# Matrix: EBLOSUM62
# Gap_penalty: 10.0
# Extend_penalty: 0.5
#
# Length: 138
# Identity:      26/138 (18.8%)
# Similarity:    50/138 (36.2%)
# Gaps:          27/138 (19.6%)
# Score: 42.0
#
#
#=======================================

EMBOSS_001        90 STVKIPFRCRCNGDVGQSDRL-------PIYVVQPQDGLDAIARNVFNAF    132
                     |:.::.....|.|...|:..|        .:|....: |...|..:|....
EMBOSS_001       257 SSTQVEVASLCAGQESQASELKQLSADQTLYAFYDK-GSQIIEDSVKPVS    305

EMBOSS_001       133 VTYQEIAAANN-------IPDPNKINVSQTLWIPLPCSCDKEEGSNVMHL    175
                     ::...|.:.||       |.|...:.:..:        .|....::..:
EMBOSS_001       306 ISDVAITSTNNHTVAHGEIIDDQSMDADE----------KKVARKSLTRI    345

EMBOSS_001       176 AYSVGKGENTSAIAAKYGVTESTLLTRNKIDDPTKLQM      213
                     ..|||..|.:..|..:..::|.|.|..|  :|..::|:
EMBOSS_001       346 RTSVGASEESQLIGREKEISEITHLILN--NDSQQVQV      381


#---------------------------------------
#---------------------------------------
```

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EMBOSS Align Results

Water Results	
Matrix	Blosum62
Open gap penalty	10.0
Gap extension penalty	0.5
Water output	water-20090211-19470451719976.output

    SUBMIT ANOTHER JOB

```
#######################################
# Program:  water
# Rundate:  Wed Feb 11 19:47:05 2009
# Align_format: srspair
# Report_file: /ebi/extserv/old-work/water-20090211-19470451719976.output
#######################################

#=======================================
#
# Aligned_sequences: 2
# 1: EMBOSS_001
# 2: EMBOSS_001
# Matrix: EBLOSUM62
# Gap_penalty: 10.0
# Extend_penalty: 0.5
#
# Length: 138
# Identity:      26/138 (18.8%)
# Similarity:    50/138 (36.2%)
# Gaps:          27/138 (19.6%)
# Score: 42.0
#
#
#=======================================

EMBOSS_001        62 STVKIPFRCRCNGDVGQSDRL-------PIYVVQPQDGLDAIARNVFNAF    104
                     |:..:.....|.|...|:..|        .:|....: |...|..:|....
EMBOSS_001       257 SSTQVEVASLCAGQESQASELKQLSADQTLYAFYDK-GSQIIEDSVKPVS    305

EMBOSS_001       105 VTYQEIAAANN-------IPDPNKINVSQTLWIPLPCSCDKEEGSNVMHL    147
                     ::...|.:.||       |.|...:.:..:          .|....::..:
EMBOSS_001       306 ISDVAITSTNNHTVAHGEIIDDQSMDADE----------KKVARKSLTRI    345

EMBOSS_001       148 AYSVGKGENTSAIAAKYGVTESTLLTRNKIDDPTKLQM        185
                     ..|||..|.:..|..:..::|.|.|..|  :|..::|:
EMBOSS_001       346 RTSVGASEESQLIGREKEISEITHLILN--NDSQQVQV        381

#---------------------------------------
#---------------------------------------
```

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EMBOSS Align Results

Water Results	
Matrix	DNAfull
Open gap penalty	10.0
Gap extension penalty	0.5
Water output	water-20090211-19531104533996.output

[SUBMIT ANOTHER JOB]

```
#######################################
# Program:  water
# Rundate:  Wed Feb 11 19:53:11 2009
# Align_format: srspair
# Report_file: /ebi/extserv/old-work/water-20090211-19531104533996.output
#######################################

#=======================================
#
# Aligned_sequences: 2
# 1: EMBOSS_001
# 2: EMBOSS_001
# Matrix: EDNAFULL
# Gap_penalty: 10.0
# Extend_penalty: 0.5
#
# Length: 1999
# Identity:     724/1999 (36.2%)
# Similarity:   724/1999 (36.2%)
# Gaps:        1073/1999 (53.7%)
# Score: 926.5
#
#
#=======================================

EMBOSS_001         1 atggcgtcgctcaccgccgcc-----------------ct-----ggcca     28
                     |||..||.|...||.|||.||                   ||       |||||
EMBOSS_001       173 atgatgttgaggacagcctccaggatttcgctgttcatcttaagaggcca    222

EMBOSS_001        29 cgccggcggccgctgccctcctcctcgt--cctcctcg-ccgccccc      75
                     ..|.||.|||...|          |||||||  .||.||||  .||.|.||
EMBOSS_001       223 tcctggtggcgatt----------tcctcgtacgctgctcgagcggcacc    262

EMBOSS_001        76 gcctccgccgccaacttcacctgcgc-ggtg-----gcttcaggcacca-    118
                     |    .|..|||||        ||  |.||      ||||  |||.||.|
EMBOSS_001       263 g----tgtggccaa----------gcagatgaaggagctt-aggaacaag    297

EMBOSS_001       119 --cctgcaagtccgcca-------------------tcctctacacctc    146
                       |..|.|.|||.||||                    ||.||.|...|||
EMBOSS_001       298 gtcgaggatgtcagccagaggaatgtgcggtaccacctcatcaagggctc    347

EMBOSS_001       147 ccccaacgccacca------cctac--ggcaacctcgtcgcccgctt---    185
                     ..!|||.!||||||      || ||  .||||.||.|      || ||
EMBOSS_001       348 tgccaaggccaccatcaattcc-actgagcaatctag-----cg-ttatt    390

EMBOSS_001       186 -caaca-ccaccaccctccccgacctcctcggc---------gccaacgg    224
                     |.||| |||          |..|||||           ||  |.||
EMBOSS_001       391 gctacagcca---------------tattcggcattgacgatgc--aagg    423

EMBOSS_001       225 cctccccgacggcacg-----------------ctt-tcc----------    246
                     |.|.||..|..|||.|                 ||| |||
EMBOSS_001       424 cgtgccgcaaagcaggacaatcagagagtggatcttgtccaactaatcaa    473

EMBOSS_001       247 ---------tccgcccc-------cgtcgc--------------------    260
                     ||.|..||          ..|||
```

```
EMBOSS_001      474 cagtgaggatcaggacctaaaagtgatcgcggtctggggaacaagtggtg    523


EMBOSS_001      261 -----cgccaa--------------------tt--------cca-ccgtc    276
                        .|||||                      ||           ||| ..|||

EMBOSS_001      524 atatgggccaaacaacaataatcaggatggcttatgagaacccagatgtc    573

EMBOSS_001      277 aaaatccccttccgctgccgctgc------aacggcga--cgtcggc---    315
                     .|||||...||||..|||||| |||      ||.||.|| |.|| |

EMBOSS_001      574 caaatcagattcccatgccg-tgcatgggtaagggtgatgcatc--cttt    620

EMBOSS_001      316 cagtc----ggaccgcctcc----------ccatctacgtcgtgcagccg    351
                     |||||     .|||....|||        ..|.||.|||||.||.

EMBOSS_001      621 cagtccaagagactttgtccagagcttggtgaatcagcttcatgcaaccc    670

EMBOSS_001      352 caggacgg-----gctc------------gacgcca-------------    370
                     .||| ||     ||||            ||.|.||

EMBOSS_001      671 aagg--ggttgaagctctgttggagaaagagaagacagaacaagatttag    718

EMBOSS_001      371 ---------tc-------gcgcgca-------acgtgt----------tc    387
                              ||       |.|.|.|       |.||||          |.

EMBOSS_001      719 ctaagaaattcaatggatgtgtgaatgataggaagtgtctaattgtgctt    768

EMBOSS_001      388 aacg-cct-tcgtcacc-----------taccag-----gagatcgccg    418
                     ||.| ||| || ||||            .||||| ||.|| ||..

EMBOSS_001      769 aatgacctatc--caccattgaagagtgggaccagattaagaaat-gctt    815

EMBOSS_001      419 ccgcgaacaacatcc-----------ccgaccc-------caa-----ca    445
                     ||     .||.||.|          ||||..|        |||       ||

EMBOSS_001      816 cc-----aaaaatgcaggaaaggaagccgaatcatagtgtcaagcactca    860

EMBOSS_001      446 agataaa--tgtcagc------------------------cagacg    465
                     ||.i.|| ||..|||                          |||| |

EMBOSS_001      861 agttgaagttgcaagcttatgtgctgggcaagaaagccaagcctcaga-g    909

EMBOSS_001      466 ctgtgg--at--tccgctg------ccct----gca-gctgcgacaag--    498
                     ||...| || ||.|||| |||| ||| .||.|||||||

EMBOSS_001      910 ctaaagcaattgtctgctgatcagaccctttacgcattctacgacaaggg    959

EMBOSS_001      499 -------------gagga------------aggctctaacgt--gatgca    521
                                  |||||            ||..||||.| | ||||

EMBOSS_001      960 ttcccaaattatagaggattcagtgaagccagtgtctatc-tcggatg--   1006

EMBOSS_001      522 cctcgcc--------------------tacagcgtc----gg--------    539
                     |.|||                    |||||.|.| ||

EMBOSS_001     1007 --tggccatcacaagtacaaacaatcatacagtggcccatggtgagatta   1054

EMBOSS_001      540 ------------caaagg-------ggagaacacgtcggcga--------    562
                                 |||.||       .|||||.|.|..|||.|

EMBOSS_001     1055 tagatgatcaatcaatggatgctgatgagaagaaggtggctagaaagagt   1104

EMBOSS_001      563 -----tcgc----tgccaagtacgg--ggtg--acggagtccacgcttct    599
                          ||||     .|.||||| | |||| .||||| |..||.

EMBOSS_001     1105 cttactcgcattaggacaagt---gttggtgcttcggag-----gaatca   1146

EMBOSS_001      600 cacc---------------agaaata----agatcgacgaccccacgaa    629
                     ||.|               |||||| |.|| |.|.|||..|

EMBOSS_001     1147 caacttattgggcgagagaaagaaatatctgaaat-----aacacactta   1191

EMBOSS_001      630 att----gcagatggga-----cagattctagatgtcccgctccctgtgt    670
                     |||     .|| |||..| |||.||| |.|| |.||.||||||

EMBOSS_001     1192 attttaaaca-atgatagccagcaggttc---aggt---gatctctgtgt   1234

EMBOSS_001      671 g-------------------------cc-----------gttcatcaa    682
                     |                         ||          |||.|||||

EMBOSS_001     1235 ggggaatgggtggccttggaaaaaccaccctagtaagcggtgtttatcaa   1284

EMBOSS_001      683 ----------tcagcgatacctcag-ctga--------------tcacaa    707
                               |.||.|||| || .||| ||||||

EMBOSS_001     1285 agcccaaggctgagtgata----agtttgacaagtatgtttttgtcacaa   1330

EMBOSS_001      708 tctgatgc-tcctccc------------------------ggatg-gc    729
                     || |||| |||||..|                        ||.|| ||

EMBOSS_001     1331 tc--atgcgtcctttcattcttgtagagctccttaggagtttggctgagc   1378

EMBOSS_001      730 acct------------------------------------atggattc    741
                     |.||                                    ||.||.||
```

```
EMBOSS_001      1379 aactacataaaggatcttctaagaaggaagaactgttagaaaatagagtc   1428

EMBOSS_001       742 accgcaggaa------act-gcatccgctgcag-------------ct--    769
                     |  ||||.||        ||| |||| ||.||.||            ||

EMBOSS_001      1429 a--gcagtaagaaatcactagcat-cgatggaggataccgagttgactgg   1475

EMBOSS_001       770 gcagt---------------------------------------------    774
                     |||||
EMBOSS_001      1476 gcagttgaaaaggcttttagaaaagaaaagttgcttgattgttctagatg   1525

EMBOSS_001       775 -----tcaactacct---------accagctaaa----------------    794
                          |||..|||||         |||||.||||
EMBOSS_001      1526 atttctcagatacctcagaatgggaccagataaaaccaacgttattcccc   1575

EMBOSS_001       795 ctg------------------------cactgcagtacagaacaaggg    818
                     |||                       .|||.||   |||| |||.|
EMBOSS_001      1576 ctgttggaaaagacaagccgaataattgtgactaca----agaa-aagag   1620

EMBOSS_001       819 a----tgcc--------cgtcag-------tgccactgtgcaatggaacg    849
                     |    ||||        | |||| |     ||..|.||||||  .|||.
EMBOSS_001      1621 aatattgccaaccattgc-tcagggaaaaatggaaatgtgca---caacc   1666

EMBOSS_001       850 ctgaag-------------------------cttg-gtga-------    863
                     .|.|||                         |||| ||||
EMBOSS_001      1667 ttaaagttcttaaacataatgatgcattgtgcctcttgagtgagaaggta   1716

EMBOSS_001       864 ---gacgaacggc-accggtt--gcggatc-aacaacgtgcgcctacag    905
                        ||.||  |||  ||.||| |  |..|||| |||||         |.|||
EMBOSS_001      1717 tttgagga--ggctacatatttggatgatcagaacaa--------tccag   1756

EMBOSS_001       906 ---tggttactccaacagttcatcgctcatc-atacaaacc-------ag    944
                        ||||||     ||.|          |.| |.|||||.|       ||
EMBOSS_001      1757 agttggtta----aaga-----------agcaaaacaaatcctaaagaag   1791

EMBOSS_001       945 --------------ccttgcaa-------------------ct----aat    957
                                   ||||||||                   ||      ||.
EMBOSS_001      1792 tgcgatggactgccccttgcaatagttgtcataggtggattcttggcaaa   1841

EMBOSS_001       958 cagacaacagcctgcc----agagaggag--------------------    982
                     |.|||.|.||.| ||     |||||.||||
EMBOSS_001      1842 ccgaccaaagac--cccagaagagtggagaaaattgaacgagaatatcaa   1889

EMBOSS_001       983 ----gatctgg-----------gaggtcg------------cagttc---   1002
                         ||..|||           |||.|.|             |.||.|
EMBOSS_001      1890 tgctgagttggaaatgaatccagagcttggaatgataagaaccgtccttg   1939

EMBOSS_001      1003 ------gcta----ggt--------ccatgtggag-catgtctgttatct   1033
                           ||||    |||        ||||.|..|| |||||.|.|||||.|
EMBOSS_001      1940 aaaaaagctatgatggtttaccataccatctcaagtcatgtttttttatat   1989

EMBOSS_001      1034 ccttccacatggtgtt-----------gatcatta-tc-----tgttt   1064
                     |..||||     |.||           |||||||| ||     .||||
EMBOSS_001      1990 ctgtcca-----ttttccctgaagaccagatcattagtcgaaggcgttt   2033


             #-------------------------------------
             #-------------------------------------
```

EMBOSS Align Results

Water Results	
Matrix	DNAfull
Open gap penalty	10.0
Gap extension penalty	0.5
Water output	water-20090211-19552600313170.output
SUBMIT ANOTHER JOB	

```
########################################
# Program:  water
# Rundate:  Wed Feb 11 19:55:28 2009
# Align_format: srspair
# Report_file: /ebi/extserv/old-work/water-20090211-19552600313170.output
########################################

#=======================================
#
# Aligned_sequences: 2
# 1: EMBOSS_001
# 2: EMBOSS_001
# Matrix: EDNAFULL
# Gap_penalty: 10.0
# Extend_penalty: 0.5
#
# Length: 1972
# Identity:    710/1972 (36.0%)
# Similarity:  710/1972 (36.0%)
# Gaps:       1059/1972 (53.7%)
# Score: 935.5
#
#
#=======================================

EMBOSS_001         5 cgtcgct-caccg--------------------ccgccctggccacgcc     32
                     |||..|| |||||                    |||||||||
EMBOSS_001       453 cgtgactccaccgtacgcttgagatcttggtactccgccctgg-------    495

EMBOSS_001        33 ggcggccgctgccctcct---cctc--ctcgtcctcctcgccgcccccgc     77
                     |||.|||.|    ||||  |||||  .||.||.|...|||..|
EMBOSS_001       496 ---------tgcgctcatcagcctcaactcgt-ttcttctcattcccttc    535

EMBOSS_001        78 ctc----cgccg--------ccaacttc----------acctg--cgcgg    103
                     |.|     .||.|        |||||||         .|.||  |.|||
EMBOSS_001       536 cacaagttgcagaaggaggtccaacttcttatcagtctccatggcctcgg    585

EMBOSS_001       104 ---tggcttcaggcaccacctgc----------aagtccgccatcctcta    140
                     ||| .|||||.|||..||||           ||.|||||.|.|||
EMBOSS_001       586 atctgg-atcaggtacctactgctctcgctccgaattccgcgaacct---    631

EMBOSS_001       141 cacctcccccaacgccaccaccta--cggcaa----cctcgtcgc----c    180
                     ||  .|||||     |||..||||      |
EMBOSS_001       632 --------------------taggggggcaagtttcctttttcgcggtgc    659

EMBOSS_001       181 cgct-------tcaacacca--ccaccc-----------tcccc-----    204
                     ||.|       |||.|.|||  ||||||            ||.||
EMBOSS_001       660 cgatccgaagatcagctccaatccaccccaaggaacaatttcaccgcaga    709

EMBOSS_001       205 ----------------------------------------------ga    206
                                                                   ||
EMBOSS_001       710 atcaagagaatttgagaagcaagagaggctctgataccagattgtcagga    759

EMBOSS_001       207 cctc-----ctcggc----------------------------gccaac    222
                     .|||      .||.||                            |.||||
```

```
EMBOSS_001       760 tctcaagaaatcagcaaagaacaacaagaacacacaaggattcaggcaac    809

EMBOSS_001       223 ------gg-----------cctccccgacggca---cgctttcctccgcc    252
                        ||          ||..|||.||.|.|   .||.||||.|||||
EMBOSS_001       810 tagtttggattgatctgctccaacccaacaggattgagccttccgccgcc    859

EMBOSS_001       253 cccgtcgcc-----gccaattc--------------------------    269
                        .|||.|.||      ||||.|||
EMBOSS_001       860 accgccaccgagttgccagttcatagttgtctttctcgagttcatcttat    909

EMBOSS_001       270 ---caccgtcaaaatcccctt----------------ccgctgcc-gctg    299
                        .||.||  |..|||.||.|              |.|..||| ||||
EMBOSS_001       910 ttatacagt-agtatctccctactcacacgacacacacagtagccagctg    958

EMBOSS_001       300 --caac---------ggcgacgtcggccagtcggacc-------------    325
                        ||||       |||.|||....|||.|||||||
EMBOSS_001       959 tacaacagatagctgggctacgcaacccactcggacccatggtaacgagg   1008

EMBOSS_001       326 -----gcct----ccccatctacgtcgtgc--------------ag---    348
                        ||.|    ||.|.|.|..|||.|||              ||
EMBOSS_001      1009 attgggctttggccctcttgtgggtcttgctcttcctggagtagtagtct   1058

EMBOSS_001       349 ---------ccgcaggacgggctcgac----------gc--catcgcg--    375
                        ||.|    ||.|||          || ||||..|
EMBOSS_001      1059 gtatctcctcctc--------ctggacttcagcttctgcttcatcaggtt   1100

EMBOSS_001       376 ------------------cgcaacgtgttca------------------    388
                        |.|..|.||||||
EMBOSS_001      1101 ctccttcttcaggttccttctctccctgttcagcttctgcttcatcaggt   1150

EMBOSS_001       389 acgccttcgtca---------------------cct-----------    403
                        .|.|||||.|||                     |||
EMBOSS_001      1151 tctccttcttcagtacccatagtgacaggcaggttcctgacaaaattctg   1200

EMBOSS_001       404 -------------------------------accaggag-------    411
                                                       ||||||||
EMBOSS_001      1201 ctcgtttgcgaccaatggtagtgatcatagttgcaaccaggaggggggggg   1250

EMBOSS_001       412 ------atcgccg------ccgcgaacaacatccc--cgacccaacaag    447
                        |||||||    ||||  .|..| ||||  ||.|||||||| |
EMBOSS_001      1251 ggggaaatcgccgtcccctccgc--tcctc-tcccgtcgtccccaac--g   1295

EMBOSS_001       448 -------------at-------aa----atgtcagc-caga---cgctgtg    470
                        ||       ||   |||.|.|| |.||    |||.|||
EMBOSS_001      1296 cctcgttcgcgcatttcgttgaacaccatgacggcgccgaattcgcagtg   1345

EMBOSS_001       471 gattccg-----------ctgccctg-cagctgcga----caa-------    497
                        ||||           ||.|||.| |..||.|.| |||
EMBOSS_001      1346 ---tccgcacatctcctcctcccccgtcctctccaaaccccaaaccctat   1392

EMBOSS_001       498 ---------ggaggaaggctctaacgtgatgcac------ctcg------    526
                        .||||.||||.|   |...||||||    .|||
EMBOSS_001      1393 ctccaccccgaggcaggcgc---ccccatgcacttgtaagtcgattgga   1439

EMBOSS_001       527 ---cct----------aca-----------gcgtcggcaaagggga----    548
                        |||          |||       |.|.|||  |.|||||
EMBOSS_001      1440 tgtcctgtcccagaagacatatcgagcgaggaggcgg--aggggggacgaa   1487

EMBOSS_001       549 --gaacacgtcg---------gc--------gatcgctgc----------    569
                        |||||..|||         ||         |||||  ||
EMBOSS_001      1488 gggaacatatcgagcgaggaagcggagggtggatcg--gcatcccccatt   1535

EMBOSS_001       570 -caag------tacggggtgacggagtcca------------cgcttct-    599
                        ||||      |||        .|||||||            .||||.|
EMBOSS_001      1536 tcaaggtactatac---------tagtccattatagtagtagtgcttttg   1576

EMBOSS_001       600 cacc--agaaataagatcgacgaccccacgaaattgcagatg--------    639
                        ||.|  |||||.||           ||||      |||
EMBOSS_001      1577 catcttagaaaaaa----------------aaat-----atgttcattag   1605

EMBOSS_001       640 ----ggacagattct--agatg----------tcccgctcc--ctgtg--    669
                        .||.||.||||  ||.||          |||..|.|| |||||
EMBOSS_001      1606 ccattgagagcttctgaagttgttgattttgttccaaccccaactgtgag   1655

EMBOSS_001       670 -tgccgttca--tcaatcagcgatacctcagctga---tcacaa------    707
                        |.|.|||||  |||          ||..|||| ||||.|
```

```
EMBOSS_001      1656 tttcagttcaggtca------------tccactgattttcactatgccaa    1693

EMBOSS_001       708 ---tctgatgctcct----cccggatggcacctatggattcaccgcagga     750
                      |||||..|..||     |.|   ||.|||  |||.|..|||    .||
EMBOSS_001      1694 ttctctgaaacaactttaccac---tgtcac--atgaacacac----tga    1734

EMBOSS_001       751 aac-------tgcatccgctgcag--------------------ctgca     772
                      |||       ||.|..|| ||.||                    ||.||
EMBOSS_001      1735 aacagtttggtgtagacg-tgtagtgaagaatgtagcatatataccttca    1783

EMBOSS_001       773 gtt-----------caacta----cc--taccagctaaactgcactgcag     805
                      .||           |||.||   ||  |||.||.||    |||   |..|
EMBOSS_001      1784 cttaatttttcttgcaattattggccattactagtta---tgc---gagg    1827

EMBOSS_001       806 tacagaa------caagggatgcccg--tca-------gtgccact----     836
                      |   ||||     .||||.|  |.|   |||       ||.|.|.|
EMBOSS_001      1828 t--agaagtgttctaaggta---ctgtatcatttttatgtactaattaat    1872

EMBOSS_001       837 ---gtgcaatggaacgc--------------------tga--------ag     855
                      ||..||| .||..|                    |||        ||
EMBOSS_001      1873 taagtttaat-aaaaactttattatctaaaaataaatgactattactag    1921

EMBOSS_001       856 cttgg--------------------tgagacg-----------------     867
                      ||.||                    |.|||||
EMBOSS_001      1922 ctcggtactccctttattttatattataagacgttttgattttttttatat  1971

EMBOSS_001       868 ------------aacggcaccggttg------cggatcaacaacgtgcgc     899
                                  ||     |.|||    |..||.||.||  |..||
EMBOSS_001      1972 acaactttctttaa-------gtttgattatacttataaaaaa--ttagc    2012

EMBOSS_001       900 ctaca--------gtggttactccaacagttca-------tcgct-----     929
                      ..|||          .|..||||...||.|||.||        .||||
EMBOSS_001      2013 aaacatatatattttttttttacattaatagtgcaagtgagcacgcttaaat  2062

EMBOSS_001       930 -catcatac-------------aaac--cagccttgca---actaatca-     959
                      |||..|||             |||| ||..|||..|   ||.||| |
EMBOSS_001      2063 gcattgtacttccttcgtaaaaaaacatcaaacttttacggacgaat-at    2111

EMBOSS_001       960 -gacaa--------------cagcctgccaga---ga--------ggag     982
                      ||.||              ||.||| |.|.|   ||        ||||
EMBOSS_001      2112 ggataaatgcatatctaaattcatcct-caataattgattctttttggag    2160

EMBOSS_001       983 gatctggga-----ggtcgcagttcgctaggtccatgtggagc-------    1020
                      ||    |.|   |||.| ||.||||..||||  .||||.|
EMBOSS_001      2161 ga----gtacaattggttg--gtgcgctttgtcc--ttggaccctacaat   2202

EMBOSS_001      1021 ----atg------tctgttatct-----cctt------ccacatgg----   1045
                          |||      |||.|.||||      ||||        |||||||
EMBOSS_001      2203 aatgatgattgtttctttaatctattgaccttgacttaccacatgggcta   2252

EMBOSS_001      1046 tgttgatcattatctgtttcct    1067
                      ||||.|||..|..|||..||||
EMBOSS_001      2253 tgtttatcccttcctgaatcct    2274


        #------------------------------------
        #------------------------------------
```

EMBOSS Align Results

Water Results	
Matrix	DNAfull
Open gap penalty	10.0
Gap extension penalty	0.5
Water output	water-20090211-19575081865795.output
SUBMIT ANOTHER JOB	

```
#######################################
# Program:  water
# Rundate:  Wed Feb 11 19:57:51 2009
# Align_format: srspair
# Report_file: /ebi/extserv/old-work/water-20090211-19575081865795.output
#######################################

#=======================================
#
# Aligned_sequences: 2
# 1: EMBOSS_001
# 2: EMBOSS_001
# Matrix: EDNAFULL
# Gap_penalty: 10.0
# Extend_penalty: 0.5
#
# Length: 1466
# Identity:     606/1466 (41.3%)
# Similarity:   606/1466 (41.3%)
# Gaps:         701/1466 (47.8%)
# Score: 922.5
#
#
#=======================================

EMBOSS_001         3 caacttcacctgcgcggtggcttcaggcaccacct-------gcaagtcc     45
                     |||..| |.|.||..||||| |||.|    ||.|     |||||||
EMBOSS_001       118 caagat-aacagcaaggtgg--tcaag----acttgggtgaagcaagtcc    160

EMBOSS_001        46 gccatcctctacacctcccccaacgccaccacct---------acggcaa     86
                     |                   .|.|||..|||       |.|.||.
EMBOSS_001       161 g---------------------tgacactgcctatgatgttgaggacag    188

EMBOSS_001        87 cctc------gtcgc----ccgcttcaaca--ccaccaccctcc-----c    119
                     |||| |      .|||| |..||| ||.|   |||        ||| .
EMBOSS_001       189 cctccaggatttcgctgttcatctt-aagaggcca------tcctggtgg    231

EMBOSS_001       120 cgacctcctcggcgccaacggcctccccga-cggcac-------------    155
                     |||..|||||| '   .||| ||.|.||| ||||||
EMBOSS_001       232 cgatttcctcg-----tacg--ctgctcgagcggcaccgtgtggccaagc    274

EMBOSS_001       156 ----------gctt-------------------tcctcc----------    165
                     |||| |                  ||..||
EMBOSS_001       275 agatgaaggagcttaggaacaaggtcgaggatgtcagccagaggaatgtg    324

EMBOSS_001       166 ----gccccc--------gtcgccgccaattccaccgtcaaaatcccctt    203
                     .||.||         |.|.|.|||||..||||||.|||       ||
EMBOSS_001       325 cggtaccacctcatcaagggctctgccaaggccaccatcaa-------tt    367

EMBOSS_001       204 ccgctgccgctgcaa-----cg-----gcgacgtcggcc--agtcggacc    241
                     ||.|||    .||||     ||       ||.|   |.|||   |.||||
EMBOSS_001       368 ccactg----agcaatctagcgttattgcta---cagccatattcgg---    407

EMBOSS_001       242 gcctccccatctac-------gtcgtgcagc--cgcaggacgggctcgac    282
                     |||..||            |.|||||.||  .||||||
```

```
EMBOSS_001       408 -------cattgacgatgcaaggcgtgccgcaaagcagga----------       440

EMBOSS_001       283 gccatc---gcgcgcaacgtgttcaacgccttcgtcacc------tacca       323
                     |.|||    |.|.|.|.|.|||.||||    |..|||.|       .|.||

EMBOSS_001       441 -caatcagagagtggatcttgtccaac----taatcaacagtgaggatca       485

EMBOSS_001       324 gga---------gatcgccgcc--gcgaaca-------acatccccgacc       355
                     |||         ||||||.|.| |.|||||       |.||     |..|

EMBOSS_001       486 ggacctaaaagtgatcgcggtctggggaacaagtggtgatat----gggc       531

EMBOSS_001       356 ccaacaa-gataa-----atgtc--------agccagacgctgt------       385
                     |.|||||| .||||     |||.|         |.|||||  |||

EMBOSS_001       532 caaacaacaataatcaggatggcttatgagaacccaga---tgtccaaat       578

EMBOSS_001       386 -ggattccgctgccctgcagctgcgacaaggagg-aaggctctaacgtga       433
                     .||||||..||||.|||| ||         || ||||        ||||

EMBOSS_001       579 cagattcccatgccgtgca--tg---------ggtaagg-------gtga       610

EMBOSS_001       434 tgca-cctcgcctacagcgtcggcaaagggggaga--------acacgtcg       474
                     |||| |||    |.|| ||| |||     |||         |.|..|.|

EMBOSS_001       611 tgcatcct----ttca--gtc--caa----gagactttgtccagagcttg       648

EMBOSS_001       475 gcg-atc-gct--------gccaagtacggggtgacggagtccacgcttc       514
                     |.| ||| |||        .||||| |||.|||.|          |

EMBOSS_001       649 gtgaatcagcttcatgcaacccaag---gggttgaag------------c       683

EMBOSS_001       515 tc------------accaga---aataagatcgacgaccccacgaaattg       549
                     ||            |..||| ||.|||||..|  .|.|.||||||

EMBOSS_001       684 tctgttggagaaagagaagacagaacaagattta----gctaagaaatt-       728

EMBOSS_001       550 ca--------------gatgggacagattctagatgtcccgctccctgtg       585
                     ||            |||.||| ||..|||| ||           ||

EMBOSS_001       729 caatggatgtgtgaatgatagga-agtgtcta-at-------------tg       763

EMBOSS_001       586 tgccgttcatcaatcagcgatacctcagctgat-cacaatctgatgctcc       634
                     |||    |.||| .||| || |.||.|| |||

EMBOSS_001       764 tgc------ttaat------gacct------atccaccat-tga------       788

EMBOSS_001       635 tcccgga-tggcacc----tatg----gattc----accgcaggaaa---       668
                     .|| |||.||| ||.| |.||| |..||||||||

EMBOSS_001       789 ----agagtgggaccagattaagaaatgcttccaaaaatgcaggaaagga       834

EMBOSS_001       669 --ctgcatc-----------cgctgcagctgcagtt--------------       691
                     |.|.||| |.||..||.||.|||

EMBOSS_001       835 agccgaatcatagtgtcaagcactcaagttgaagttgcaagcttatgtgc       884

EMBOSS_001       692 ----caacta-------cctaccagctaaactgca-----ctgcagtaca       725
                     |||..| |||...|||||||| ||| ||||.|..||

EMBOSS_001       885 tgggcaagaaagccaagcctcagagctaaa--gcaattgtctgctgatca       932

EMBOSS_001       726 ga-----------------acaagggatgccc-------------gtca       744
                     ||                 ||||||| |.|||           .|||

EMBOSS_001       933 gaccctttacgcattctacgacaagggg-ttcccaaattatagaggattca       981

EMBOSS_001       745 gt---gccactgtgcaat---ggaacgctg----------aag-------       771
                     ||   ||||.|||  |.|| |||     ||| |||

EMBOSS_001       982 gtgaagccagtgt-ctatctcgga----tgtggccatcacaagtacaaac       1026

EMBOSS_001       772 ---------------cttggtgagacgaacg--------gcaccggttgc       798
                     |.||||||||..|.| .||..||.|||

EMBOSS_001      1027 aatcatacagtggcccatggtgagattatagatgatcaatcaatggatgc       1076

EMBOSS_001       799 ggat--caacaacgtgcgcct----acagtggttactc---------caa       833
                     .||| .||.||.|| |.|| |.||| .||||||         |||

EMBOSS_001      1077 tgatgagaagaaggt--ggctagaaagagt-cttactcgcattaggacaa       1123

EMBOSS_001       834 cagttcatcgct-------catcatacaaaccagcctt-----gc-----       866
                     ..|||..| ||| .||| |||| |||     ||

EMBOSS_001      1124 gtgttggt-gcttcggaggaatc--acaa------cttattgggcgagag       1164

EMBOSS_001       867 -------------aactaatcagac---------aac------agcctgc       888
                     ||.||| ||.|| ||| |||||.||

EMBOSS_001      1165 aaagaaatatctgaaataa-cacacttaatttaaacaatgatagccagc       1213

EMBOSS_001       889 cagagagg---ag--gatct-------ggga---ggtcgc----------       913
                     ||| || ||||| |||| |||.||
```

```
EMBOSS_001      1214 -----aggttcaggtgatctctgtgtgggggaatgggtggccttggaaaaa  1258

EMBOSS_001       914 -------agttcgctaggt-----------ccatg--------------   930
                          |||..||  |||                |||.|

EMBOSS_001      1259 ccaccctagtaagc--ggtgtttatcaaagcccaaggctgagtgataagt  1306

EMBOSS_001       931 tggagcatgtctgtt---------atc-----tccttccacatggtgttg   966
                          |.||  ||.||.||||          |||      |||||.||  .|..|||.|
EMBOSS_001      1307 ttga-caagtatgtttttgtcacaatcatgcgtcctttca-ttcttgtag  1354

EMBOSS_001       967 a--tcattatctgttt     980
                          |    ||.|||...||||
EMBOSS_001      1355 agctccttaggagttt    1370


#---------------------------------------
#---------------------------------------
```

Help
General Help
Formats
Gaps
Matrix
References
EMBOSS-Align Help

EMBOSS Align Results

Water Results

Matrix	Blosum62
Open gap penalty	10.0
Gap extension penalty	0.5
Water output	water-20090211-19593453477019.output

   SUBMIT ANOTHER JOB

```
########################################
# Program:  water
# Rundate:  Wed Feb 11 19:59:36 2009
# Align_format: srspair
# Report_file: /ebi/extserv/old-work/water-20090211-19593453477019.output
########################################

#=======================================
#
# Aligned_sequences: 2
# 1: EMBOSS_001
# 2: EMBOSS_001
# Matrix: EBLOSUM62
# Gap_penalty: 10.0
# Extend_penalty: 0.5
#
# Length: 1521
# Identity:     628/1521 (41.3%)
# Similarity:   628/1521 (41.3%)
# Gaps:         566/1521 (37.2%)
# Score: 2769.0
#
#
#=======================================

EMBOSS_001         1 gcc------------aacttcacctgc----gcggtg-----------g     22
                     |||             ..||.|.|.|||    |..|||          |
EMBOSS_001       200 gccgtttatctgctggtgctcctcttgctgtagtagtgttgttggtgttg   249

EMBOSS_001        23 cttcaggc-acc----------acctg-------caagtccgccatcct-     53
                     ||.|.|.. |||           .|.||       ||.||.|.||||..|
EMBOSS_001       250 ctgctgatgacctaaaatgcttgcatgtttctatcatgttctccataatg   299

EMBOSS_001        54 ------------ctacacctccc--------------ccaacgccaccac     77
                                 ||.||.||.||              |||.....|.||||
EMBOSS_001       300 tagtatcatgtactccatcttccttgttggtttttgtccataatctccac   349

EMBOSS_001        78 ctacggcaac---------------ctcg---tcgcccgc-------ttc   102
                     ||. ||||.|               |||| |.|.||.|       |||
EMBOSS_001       350 ctt-ggcagcttgcatcatcttactctcgagcttgtccaccttgagattc   398

EMBOSS_001       103 aacacc----ac----caccc------tcc-ccgac--ctcctcggc--g   133
                     |||.||    ||    |.|||      ||| ||..| ||||.||||  |
EMBOSS_001       399 aactcctggaacgcggctcccagttcatccaccctcttctccacggcagg   448

EMBOSS_001       134 ccaacg-gcctcc-ccgacggcacg----ctt--tcctccgcccccgt-c   174
                     ....|| |.|||| |||...||..|     ||| |.|||||||||..|| |
EMBOSS_001       449 aatccgtgactccaccgtacgcttgagatcttggtactccgccctggtgc   498

EMBOSS_001       175 g------ccgccaattccac-cgtcaaaatcccttccgctgccgctgcaa   218
                     |       |.|||    ||.|| |||  ....||.|.|||| ||.||.|       |
EMBOSS_001       499 gctcatcagcc---tcaactcgt-ttcttctcattcc-cttccac----a   539

EMBOSS_001       219 cggcgacgtcggccagtcggaccgcctccccatct-acgtcgtgcagccg   267
                     .|..|..|..|| .||.||..||.|..|||. .|..|.|| |||.
```

```
EMBOSS_001        540 agttgcagaagg-----aggtccaacttcttatcagtctccatg--gcct    582

EMBOSS_001        268 caggacgggctc----gacgccatcgcgcgcaacgtgttcaacg------    307
                      |.|..|.||.||    ..|..|..|.|.|.|||..||..|||..||
EMBOSS_001        583 cggatctggatcaggtacctactgctctcgctccgaattccgcgaacctt    632

EMBOSS_001        308 -------------cctt----cgtcacctaccaggagatcg--------c    332
                                   ||||    ||...||.|.|.|.|||||.        |
EMBOSS_001        633 agggggcaagtttccttttcgcggtgccgatccgaagatcagctccaatc    682

EMBOSS_001        333 cgccgc---gaacaacatccccgaccccaacaagatyaaat------gtca    373
                      |.||.|   ||||||..||.|||  |...|.|||||.||.|      |..|
EMBOSS_001        683 caccccaaggaacaatttcaccg-cagaatcaagagaatttgagaagcaa    731

EMBOSS_001        374 gccagacgctg-------------tggat---------tccgc--tgccc    399
                      |..||.|.|||             .||||         ||.||  .|..|
EMBOSS_001        732 gagaggctctgataccagattgtcaggatctcaagaaatcagcaaagaac    781

EMBOSS_001        400 tgcagctgcg-acaaggaggaaggc-tctaacgtg--atgcacctcgcct    445
                      ..||....|. |||||||...|||| .|||...||  .||..|..|.||.
EMBOSS_001        782 aacaagaacacacaaggattcaggcaactagtttggattgatctgctcca    831

EMBOSS_001        446 acagcgtcggcaaaggggagaacacgtcggcgatcgctgccaagtacggg    495
                      ||.     |..|  |||...||.| |.||.||...|.|.|||    .||.|
EMBOSS_001        832 acc----caac--aggattgagc-cttccgccgccaccgcca---ccgag    871

EMBOSS_001        496 gtgacgg--------agtc---cacg----cttctca-----ccagaaat    525
                      .||.|.|        .|||   |.||    |.|||.|     .|||.|.|
EMBOSS_001        872 ttgccagttcatagttgtctttctcgagttcatcttatttatacagtagt    921

EMBOSS_001        526 a------agatcg-acgaccccacgaaattg-cagatgg--gacagatt-    564
                      |       ...||. |||| |.|||..|.|.| |||.||.  .||||||.
EMBOSS_001        922 atctccctactcacacga-cacacacagtagccagctgtacaacagatag    970

EMBOSS_001        565 -----ctagatgtcccgct----ccctgtgtgccg----------ttcat    595
                           |||.....|||.|| |||.||..|| |||...|
EMBOSS_001        971 ctgggctacgcaacccactcggacccatggtaacgaggattgggctttgg   1020

EMBOSS_001        596 caatc-agcgatac---ctcag-ctg--atcacaatctg---atgctcct    635
                      |..|| .|.|...| |||.. ||| .|...|.|||| .|.|||||
EMBOSS_001       1021 ccctcttgtgggtcttgctcttcctggagtagtagtctgtatctcctcct   1070

EMBOSS_001        636 cccggatggca-cctatg--------gattcacc----gcaggaaactgc    672
                      ||.|||...|| |.|.|| |.|||.|| .||||...||.|
EMBOSS_001       1071 cctggacttcagcttctgcttcatcaggttctccttcttcaggttccttc   1120

EMBOSS_001        673 --------atccgctgcagctgca----gttcaac--------tacc---    699
                              .||.|||.|.|||.|| ||||..| ||||
EMBOSS_001       1121 tctccctgttcagcttctgcttcatcaggttctccttcttcagtacccat   1170

EMBOSS_001        700 -------------taccag-ctaaa--ctgcac---tgc-------agta    723
                                   |.||.| |.||| ||||.|   |||        .|||
EMBOSS_001       1171 agtgacaggcaggttcctgacaaaattctgctcgtttgcgaccaatggta   1220

EMBOSS_001        724 cagaaca--------------agggatg----------------cccgtc    743
                      ..||.||              ||||.|                |||.||
EMBOSS_001       1221 gtgatcatagttgcaaccaggaggggggggggggggaaatcgccgtccctc   1270

EMBOSS_001        744 agtgccact------gt--gcaatggaacgctgaagc--ttggtgagacg    783
                      .|..||.||      ||  .|||.|...||.|...||  ||.||...||.
EMBOSS_001       1271 cgctcctctcccgtcgtccccaacgcctcgttcgcgcatttcgttgaaca   1320

EMBOSS_001        784 ----aacggcaccggttgcgga---tc--aacaacgtgcgcctacagtgg    824
                          .|||||.||||..|.||.| || .|||.| |.|.|||.|...|.
EMBOSS_001       1321 ccatgacggcgccgaattcgcagtgtccgcacatc-tcctcctcccccgt   1369

EMBOSS_001        825 ttactccaa----cagttcatcgctcatcatacaaaccag------cctt    864
                      ...||||||      ||...|.|.|||..|....|.|.|||      ||.|
EMBOSS_001       1370 cctctccaaaccccaaaccctatctccaccccgaggcaggcgcccccat   1419

EMBOSS_001        865 gcaactaatcagacaacag-----cctg--ccaga-------------ga    894
                      || |||..|.||.|.|..|     |||| |||||             ||
EMBOSS_001       1420 gc-acttgtaagtcgattggatgtcctgtcccagaagacatatcgagcga   1468

EMBOSS_001        895 ggagg--------------------atc--------------tgggag    908
                      |||||                    |||              .|||.|
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```
EMBOSS_001      1469 ggaggcggaggggggacgaagggaacatatcgagcgaggaagcggagggtg   1518

EMBOSS_001       909 g-tcg--------cagttc-----gcta----ggtccat-------gtgg    933
                     |  |||          ||.|||      .|||     .||||||         ||.|

EMBOSS_001      1519 gatcggcatcccccatttcaaggtactatactagtccattatagtagtag   1568

EMBOSS_001       934 agc---------------------atgtctgttatc------------    948
                     .||                     ||||...|||.|

EMBOSS_001      1569 tgcttttgcatcttagaaaaaaaaaatatgttcattagccattgagagctt   1618

EMBOSS_001       949 ------------------tccttccaca--tg-gtgtt--------gat    968
                                       |||..||.||  ||  |.|||         |.|

EMBOSS_001      1619 ctgaagttgttgattttgttccaaccccaactgtgagtttcagttcaggt   1668

EMBOSS_001       969 cattatctg--tttc-ctttg      986
                     |||...|||  |||| ||.||

EMBOSS_001      1669 catccactgattttcactatg     1689


#---------------------------------------
#---------------------------------------
```